

Response  
Serial No. 10/156,441

Docket No. GB010100

REMARKS

Request for reconsideration and allowance of all the pending claims are respectfully requested in light of the following remarks.

Claims 1-6, and 8 and stand rejected. Claims 1-6, 8 and 11 are pending herein. New claim 11 has been added. Support for new claim 11 can be found at least on page 5, line 12 through page 6, line 9. No new matter has been added.

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Ray (U.S. 5,287,286) in view of Rahmatullah et al. (U.S. 6,026,130); claims 5-6 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Ray in view of Rahmatullah et al., and in further view of Estrick et al. (U.S. 5,237,332).

The Office Action alleges *inter alia* that Ray discloses a method of receiving a signal propagated over a signal channel, comprising receiving and demodulating the signal, equalising the demodulated signal in a first operation to counter a first type of distortion and in a second operation equalising the signal from the first operation to counter a second type of distortion, citing col. 1, line 41 – col. 2, line 23.

Further, the Office admits that Ray does not specifically disclose storing training sequences for respective couples of transmitting and receiving equipments and by selecting the optimum training sequence for a currently used couple of transmitting and receiving equipments.

Applicant respectfully traverses. Nowhere, either at the cited locations in the Ray reference nor anywhere else in the Ray reference, does Ray teach or suggest *in a second operation equalising the signal from the first operation to counter a second type of distortion*, as recited by instant independent claim 1. In particular, col. 1, lines 40-54,

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Ray teaches a high frequency receive equalizer in a baseband data receiver utilizing a frequency selective equalization filter. The equalization filter comprises a plurality of discrete frequency selective transfer functions arranged in a monotonically increasing order. The overall filter transfer function is realized by cascading individual stages so as to produce a product reflecting the desired response. Therefore, although Ray teaches a multistage device, it does not have two equalizing operations to counter a first and second type of distortion. Further, Applicants can find nothing in Ray to suggest or imply that the Ray device can counter a more than one type of distortion. Accordingly, Ray fails to teach or suggest, in any of these sections, in a second operation equalising the signal from the first operation to counter a second type of distortion, as recited in independent claim 1.

The addition of Rahmatullah and Estrick fails to cure the infirmities of Ray. Rahmatullah and Estrick fail to disclose a method of receiving a signal propagated over a signal channel, comprising receiving and demodulating the signal, equalising the demodulated signal in a first operation to counter a first type of distortion and in a second operation equalising the signal from the first operation to counter a second type of distortion.

Still further, Rahmatullah is cited as teaching storing training sequences for respective couples of transmitting and receiving equipments and by selecting the optimum training sequence for a currently used couple of transmitting and receiving equipments, (col. 14, line 38 – col. 16, line 58) and alleges that it would have been obvious to one of ordinary skill in the art at the time the present invention was made to modify the invention of Ray as taught by Rahmatullah.

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Applicant respectfully traverses. Nowhere, either at the cited locations in the Rahmatullah reference nor anywhere else in the Rahmatullah reference, does Rahmatullah teach or suggest that specific limitations of storing training sequences for respective couples of transmitting and receiving equipments and by selecting the optimum training sequence for a currently used couple of transmitting and receiving equipments. Rahmatullah, in the above sections teaches the process of estimating parameters of the transmission channel... e.g. the best channel vector for the transmission channel. Thus, Rahmatullah does not store *training sequences for respective couples of transmitting and receiving equipments...*, as recited in independent claim 1, but simply estimates parameters for a transmission channel.

In view of the foregoing discussion, the Office Action has failed to make out a *prima facie* case of obviousness, instant independent claim 1 is allowable and the rejection should be withdrawn.

New claim 11 is believed allowable for the same reasons as indicated for independent claim 1.

Claims 2-6, are dependent from allowable claim 1, are allowable for at least this reason and any rejections thereof should be withdrawn.

Claim 8 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Karabinis (U.S. 4,415,872) in view of Serizawa et al. (U.S. 5,274,670) and Yong et al. (JP 10-117380).

The Office Action alleges *inter alia* that Karabinis discloses a receiver comprising means for receiving a signal propagated over a signal channel, means for demodulating the received signal, a first equalising stage coupled to the demodulating means for

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countering a first type of distortion and a second equalising stage coupled to the first equalising stage for countering a second type of distortion, citing FIGs 1-2, col. 2, line 34 – col. 6, line 20.

Further, the Office admits that Karabinis does not specifically disclose wherein the first equalising stage includes means for storing a first training sequence and the second equalising stage includes means for storing a second training sequence and means for storing a plurality of the first and second training sequences for respective couples comprising the receiver with different transmitters and means for selecting an optimum training sequence for a currently used couple.

Applicant respectfully traverses. Nowhere, either at the cited locations in the Karabinis reference nor anywhere else in the Karabinis reference, does Karabinis teach or suggest *a second equalising stage coupled to the first equalising stage for countering a second type of distortion*, as recited by instant independent claim 8. In particular, in the cited location, Karabinis teaches a cascade of feed-forward stages.... for an equalizing operation. Therefore, although Karabinis teaches a multistage device it does not have two equalizing operations to counter a first and second type of distortion. Further, Applicants can find nothing in Karabinis to suggest or imply that the Karabinis device can counter a more than one type of distortion. Accordingly, Karabinis fails to teach or suggest, in any of these sections, in a second operation equalising the signal from the first operation to counter a second type of distortion, as recited in independent claim 8.

The addition of Serizawa and Yong fails to cure the infirmities of Karabinis. Serizawa and Yong fail to disclose a receiver comprising means for receiving a signal propagated over a signal channel, means for demodulating the received signal, a first

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equalising stage coupled to the demodulating means for countering a first type of distortion and a second equalising stage coupled to the first equalising stage for countering a second type of distortion...

In view of the foregoing discussion, the Office Action has failed to make out a *prima facie* case of obviousness, instant independent claim 8 is allowable and the rejection should be withdrawn.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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